

Cys Leu Val Phe Thr Val Ala Thr Ile Met Val Leu Val Val Gln Arg
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Thr Asp Ser Ile Pro Asn Ser Pro Asp Asn Val Pro Leu Lys Gly Gly
 65 70 75 80

Asn Cys Ser Glu Asp Leu Leu Cys Ile Leu Lys Arg Ala Pro Phe Lys
 85 90 95

Lys Ser Trp Ala Tyr Leu Gln Val Ala Lys His Leu Asn Lys Thr Lys
 100 105 110

Leu Ser Trp Asn Lys Asp Gly Ile Leu His Gly Val Arg Tyr Gln Asp
 115 120 125

Gly Asn Leu Val Ile Gln Phe Pro Gly Leu Tyr Phe Ile Ile Cys Gln
 130 135 140

Leu Gln Phe Leu Val Gln Cys Pro Asn Asn Ser Val Asp Leu Lys Leu
 145 150 155 160

Glu Leu Leu Ile Asn Lys His Ile Lys Lys Gln Ala Leu Val Thr Val
 165 170 175

Cys Glu Ser Gly Met Gln Thr Lys His Val Tyr Gln Asn Leu Ser Gln
 180 185 190

Phe Leu Leu Asp Tyr Leu Gln Val Asn Thr Thr Ile Ser Val Asn Val
 195 200 205

Asp Thr Phe Gln Tyr Ile Asp Thr Ser Thr Phe Pro Leu Glu Asn Val
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Leu Ser Ile Phe Leu Tyr Ser Asn Ser Asp
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gac cca gcc atg cag gtg cag ccc ggc tcg gta gcc agc ccc tgg aga	96
Asp Pro Ala Met Gln Val Gln Pro Gly Ser Val Ala Ser Pro Trp Arg	
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agc acg agg ccc tgg aga agc aca agt cgc agc tac ttc tac ctc agc	144
Ser Thr Arg Pro Trp Arg Ser Thr Ser Arg Ser Tyr Phe Tyr Leu Ser	
35 40 45	
acc acc gca ctg gtg tgc ctt gtt gtg gca gtg gcg atc att ctg gta	192
Thr Thr Ala Leu Val Cys Leu Val Val Ala Val Ala Ile Ile Leu Val	
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ctg gta gtc cag aaa aag gac tcc act cca aat aca act gag aag gcc	240
Leu Val Val Gln Lys Lys Asp Ser Thr Pro Asn Thr Thr Glu Lys Ala	
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ccc ctt aaa gga gga aat tgc tca gag gat ctc ttc tgt acc ctg aaa	288
Pro Leu Lys Gly Gly Asn Cys Ser Glu Asp Leu Phe Cys Thr Leu Lys	
85 90 95	
agt act cca tcc aag aag tca tgg gcc tac ctc caa gtg tca aag cat	336
Ser Thr Pro Ser Lys Lys Ser Trp Ala Tyr Leu Gln Val Ser Lys His	
100 105 110	
ctc aac aat acc aaa ctg tca tgg aac gaa gat ggc acc atc cac gga	384
Leu Asn Asn Thr Lys Leu Ser Trp Asn Glu Asp Gly Thr Ile His Gly	
115 120 125	
ctc ata tac cag gac ggg aac ctg ata gtc caa ttc cct ggc ttg tac	432
Leu Ile Tyr Gln Asp Gly Asn Leu Ile Val Gln Phe Pro Gly Leu Tyr	
130 135 140	
ttc atc gtt tgc caa ctg cag ttc ctc gtg cag tgc tca aat cat tct	480
Phe Ile Val Cys Gln Leu Gln Phe Leu Val Gln Cys Ser Asn His Ser	
145 150 155 160	
gtg gac ctg aca ttg cag ctc ctc atc aat tcc aag atc aaa aag cag	528
Val Asp Leu Thr Leu Gln Leu Leu Ile Asn Ser Lys Ile Lys Lys Gln	
165 170 175	
acg ttg gta aca gtg tgt gag tct gga gtt cag agt aag aac atc tac	576
Thr Leu Val Thr Val Cys Glu Ser Gly Val Gln Ser Lys Asn Ile Tyr	
180 185 190	
cag aat ctc tct cag ttt ttg ctg cat tac tta cag gtc aac tct acc	624
Gln Asn Leu Ser Gln Phe Leu Leu His Tyr Leu Gln Val Asn Ser Thr	
195 200 205	
ata tca gtc agg gtg gat aat ttc cag tat gtg gat aca aac act ttc	672

Ile Ser Val Arg Val Asp Asn Phe Gln Tyr Val Asp Thr Asn Thr Phe
 210 215 220

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 Pro Leu Asp Asn Val Leu Ser Val Phe Leu Tyr Ser Ser Ser Asp
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Ser Thr Arg Pro Trp Arg Ser Thr Ser Arg Ser Tyr Phe Tyr Leu Ser
 35 40 45

Thr Thr Ala Leu Val Cys Leu Val Val Ala Val Ala Ile Ile Leu Val
 50 55 60

Leu Val Val Gln Lys Lys Asp Ser Thr Pro Asn Thr Thr Glu Lys Ala
 65 70 75 80

Pro Leu Lys Gly Gly Asn Cys Ser Glu Asp Leu Phe Cys Thr Leu Lys
 85 90 95

Ser Thr Pro Ser Lys Lys Ser Trp Ala Tyr Leu Gln Val Ser Lys His
 100 105 110

Leu Asn Asn Thr Lys Leu Ser Trp Asn Glu Asp Gly Thr Ile His Gly
 115 120 125

Leu Ile Tyr Gln Asp Gly Asn Leu Ile Val Gln Phe Pro Gly Leu Tyr
 130 135 140

Phe Ile Val Cys Gln Leu Gln Phe Leu Val Gln Cys Ser Asn His Ser
 145 150 155 160

Val Asp Leu Thr Leu Gln Leu Leu Ile Asn Ser Lys Ile Lys Lys Gln
 165 170 175

Thr Leu Val Thr Val Cys Glu Ser Gly Val Gln Ser Lys Asn Ile Tyr
 180 185 190

Gln Asn Leu Ser Gln Phe Leu Leu His Tyr Leu Gln Val Asn Ser Thr
 195 200 205

Ile Ser Val Arg Val Asp Asn Phe Gln Tyr Val Asp Thr Asn Thr Phe
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Pro Leu Asp Asn Val Leu Ser Val Phe Leu Tyr Ser Ser Ser Asp
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 cga gcc ttc cca cag gat cga ccc ttc gag gac acc tgt cat gga aac 96
 Arg Ala Phe Pro Gln Asp Arg Pro Phe Glu Asp Thr Cys His Gly Asn
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 ccc agc cac tac tat gac aag gct gtc agg agg tgc tgt tac cgc tgc 144
 Pro Ser His Tyr Tyr Asp Lys Ala Val Arg Arg Cys Cys Tyr Arg Cys
 35 40 45
 ccc atg ggg ctg ttc ccg aca cag cag tgc cca cag agg cct act gac 192
 Pro Met Gly Leu Phe Pro Thr Gln Gln Cys Pro Gln Arg Pro Thr Asp
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 tgc agg aag cag tgt gag cct gac tac tac ctg gat gag gcc gac cgc 240
 Cys Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Asp Arg
 65 70 75 80
 tgt aca gcc tgc gtg act tgt tct cga gat gac ctc gtg gag aag acg 288
 Cys Thr Ala Cys Val Thr Cys Ser Arg Asp Asp Leu Val Glu Lys Thr
 85 90 95
 ccg tgt gca tgg aac tcc tcc cgt gtc tgc gaa tgt cga ccc ggc atg 336
 Pro Cys Ala Trp Asn Ser Ser Arg Val Cys Glu Cys Arg Pro Gly Met
 100 105 110

ttc tgt tcc acg tct gcc gtc aac tcc tgt gcc cgc tgc ttc ttc cat	384
Phe Cys Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe His	
115 120 125	
tct gtc tgt ccg gca ggg atg att gtc aag ttc cca ggc acg gcg cag	432
Ser Val Cys Pro Ala Gly Met Ile Val Lys Phe Pro Gly Thr Ala Gln	
130 135 140	
aag aac acg gtc tgt gag ccg gct tcc cca ggg gtc agc cct gcc tgt	480
Lys Asn Thr Val Cys Glu Pro Ala Ser Pro Gly Val Ser Pro Ala Cys	
145 150 155 160	
gcc agc cca gag aac tgc aag gaa ccc tcc agt ggc acc atc ccc cag	528
Ala Ser Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro Gln	
165 170 175	
gcc aag ccc acc ccg gtg tcc cca gca acc tcc agt gcc agc acc atg	576
Ala Lys Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr Met	
180 185 190	
cct gta aga ggg ggc acc cgc ctc gcc cag gaa gct gct tct aaa ctg	624
Pro Val Arg Gly Gly Thr Arg Leu Ala Gln Glu Ala Ser Lys Leu	
195 200 205	
acg agg gct ccc gac tct ccc tcc tct gtg gga agg cct agt tca gat	672
Thr Arg Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser Asp	
210 215 220	
cca ggt ctg tcc cca aca cag cca tgc cca gag ggg tct ggt gat tgc	720
Pro Gly Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp Cys	
225 230 235 240	
aga aag cag tgt gag ccc gac tac tac ctg gac gag gcc ggc cgc tgc	768
Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg Cys	
245 250 255	
aca gcc tgc gtg agc tgt tct cga gat gac ctt gtg gag aag acg cca	816
Thr Ala Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro	
260 265 270	
tgt gca tgg aac tcc tcc cgc acc tgc gaa tgt cga cct ggc atg atc	864
Cys Ala Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met Ile	
275 280 285	
tgt gcc aca tca gcc acc aac tcc tgt gcc cgc tgt gtc ccc tac cca	912
Cys Ala Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr Pro	
290 295 300	
atc tgt gca gga gag acg gtc acc aag ccc cag gat atg gct gag aag	960
Ile Cys Ala Gly Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu Lys	
305 310 315 320	
gac acc acc ttt gag gcg cca ccc ctg ggg acc cag ccg gac tgc aac	1008
Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn	
325 330 335	

ccc acc cca gag aat ggc gag gcg cct gcc agc acc agc ccc act cag	1056
Pro Thr Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr Gln	
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agc ttg ctg gtg gac tcc cag gcc agt aag acg ctg ccc atc cca acc	1104
Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr	
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agc gct ccc gtc gct ctc tcc tcc acg ggg aag ccc gtt ctg gat gca	1152
Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala	
370 375 380	
ggg cca gtg ctc ttc tgg gtg atc ctg gtg ttg gtt gtg gtg gtc ggc	1200
Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Val Gly	
385 390 395 400	
tcc agc gcc ttc ctc ctg tgc cac cgg agg gcc tgc agg aag cga att	1248
Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg Ile	
405 410 415	
cgg cag aag ctc cac ctg tgc tac ccg gtc cag acc tcc cag ccc aag	1296
Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys	
420 425 430	
cta gag ctt gtg gat tcc aga ccc agg agg agc tca acg cag ctg agg	1344
Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg	
435 440 445	
agt ggt gcg tcg gtg aca gaa ccc gtc gcg gaa gag cga ggg tta atg	1392
Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met	
450 455 460	
agc cag cca ctg atg gag acc tgc cac agc gtg ggg gca gcc tac ctg	1440
Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu	
465 470 475 480	
gag agc ctg ccg ctg cag gat gcc agc ccg gcc ggg ggc ccc tcg tcc	1488
Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser	
485 490 495	
ccc agg gac ctt cct gag ccc cgg gtg tcc acg gag cac acc aat aac	1536
Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn	
500 505 510	
aag att gag aaa atc tac atc atg aag gct gac acc gtg atc gtg ggg	1584
Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly	
515 520 525	
acc gtg aag gct gag ctg ccg gag ggc cgg ggc ctg gcg ggg cca gca	1632
Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala	
530 535 540	
gag ccc gag ttg gag gag gag ctg gag gcg gac cat acc ccc cac tac	1680
Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr	
545 550 555 560	
ccc gag cag gag aca gaa ccg cct ctg ggc agc tgc agc gat gtc atg	1728

Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met
565 570 575

ctc tca gtg gaa gag gaa ggg aaa gaa gac ccc ttg ccc aca gct gcc 1776
Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala
580 585 590

tct gga aag tga 1788
Ser Gly Lys
595

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<400> 6

Met Arg Val Leu Leu Ala Ala Leu Gly Leu Leu Phe Leu Gly Ala Leu
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Pro Ser His Tyr Tyr Asp Lys Ala Val Arg Arg Cys Cys Tyr Arg Cys
35 40 45

Pro Met Gly Leu Phe Pro Thr Gln Gln Cys Pro Gln Arg Pro Thr Asp
50 55 60

Cys Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Asp Arg
65 70 75 80

Cys Thr Ala Cys Val Thr Cys Ser Arg Asp Asp Leu Val Glu Lys Thr
85 90 95

Pro Cys Ala Trp Asn Ser Ser Arg Val Cys Glu Cys Arg Pro Gly Met
100 105 110

Phe Cys Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe His
115 120 125

Ser Val Cys Pro Ala Gly Met Ile Val Lys Phe Pro Gly Thr Ala Gln
130 135 140

Lys Asn Thr Val Cys Glu Pro Ala Ser Pro Gly Val Ser Pro Ala Cys
145 150 155 160

Ala Ser Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro Gln
165 170 175

Ala Lys Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr Met
180 185 190

Pro Val Arg Gly Gly Thr Arg Leu Ala Gln Glu Ala Ala Ser Lys Leu
195 200 205

Thr Arg Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser Asp
210 215 220

Pro Gly Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp Cys
225 230 235 240

Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg Cys
245 250 255

Thr Ala Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro
260 265 270

Cys Ala Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met Ile
275 280 285

Cys Ala Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr Pro
290 295 300

Ile Cys Ala Gly Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu Lys
305 310 315 320

Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn
325 330 335

Pro Thr Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr Gln
340 345 350

Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr
355 360 365

Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala
370 375 380

Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Val Gly
 385 390 395 400

Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg Ile
 405 410 415

Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys
 420 425 430

Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg
 435 440 445

Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met
 450 455 460

Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu
 465 470 475 480

Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser
 485 490 495

Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn
 500 505 510

Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly
 515 520 525

Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala
 530 535 540

Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr
 545 550 555 560

Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met
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Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala
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Ser Gly Lys
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 acttcccgtg tcctctggaa gttgtcagga gca atg ttg cgc ttg tac gtg ttg 174
 Met Leu Arg Leu Tyr Val Leu
 -10
 gta atg gga gtt tct gcc ttc acc ctt cag cct gcg gca cac aca ggg 222
 Val Met Gly Val Ser Ala Phe Thr Leu Gln Pro Ala Ala His Thr Gly
 -5 -1 1 5 10
 gct gcc aga agc tgc cgg ttt cgt ggg agg cat tac aag cgg gag ttc 270
 Ala Ala Arg Ser Cys Arg Phe Arg Gly Arg His Tyr Lys Arg Glu Phe
 15 20 25
 agg ctg gaa ggg gag cct gta gcc ctg agg tgc ccc cag gtg ccc tac 318
 Arg Leu Glu Gly Glu Pro Val Ala Leu Arg Cys Pro Gln Val Pro Tyr
 30 35 40
 tgg ttg tgg gcc tct gtc agc ccc cgc atc aac ctg aca tgg cat aaa 366
 Trp Leu Trp Ala Ser Val Ser Pro Arg Ile Asn Leu Thr Trp His Lys
 45 50 55
 aat gac tct gct agg acg gtc cca gga gaa gaa gag aca cgg atg tgg 414
 Asn Asp Ser Ala Arg Thr Val Pro Gly Glu Glu Glu Thr Arg Met Trp
 60 65 70
 gcc cag gac ggt gct ctg tgg ctt ctg cca gcc ttg cag gag gac tct 462
 Ala Gln Asp Gly Ala Leu Trp Leu Leu Pro Ala Leu Gln Glu Asp Ser
 75 80 85 90
 ggc acc tac gtc tgc act act aga aat gct tct tac tgt gac aaa atg 510

Gly	Thr	Tyr	Val	Cys	Thr	Thr	Arg	Asn	Ala	Ser	Tyr	Cys	Asp	Lys	Met	
				95					100					105		
tcc	att	gag	ctc	aga	gtt	ttt	gag	aat	aca	gat	gct	ttc	ctg	ccg	ttc	558
Ser	Ile	Glu	Leu	Arg	Val	Phe	Glu	Asn	Thr	Asp	Ala	Phe	Leu	Pro	Phe	
			110					115					120			
atc	tca	tac	ccg	caa	att	tta	acc	ttg	tca	acc	tct	ggg	gta	tta	gta	606
Ile	Ser	Tyr	Pro	Gln	Ile	Leu	Thr	Leu	Ser	Thr	Ser	Gly	Val	Leu	Val	
		125					130					135				
tgc	cct	gac	ctg	agt	gaa	ttc	acc	cgt	gac	aaa	act	gac	gtg	aag	att	654
Cys	Pro	Asp	Leu	Ser	Glu	Phe	Thr	Arg	Asp	Lys	Thr	Asp	Val	Lys	Ile	
	140					145					150					
caa	tgg	tac	aag	gat	tct	ctt	ctt	ttg	gat	aaa	gac	aat	gag	aaa	ttt	702
Gln	Trp	Tyr	Lys	Asp	Ser	Leu	Leu	Leu	Asp	Lys	Asp	Asn	Glu	Lys	Phe	
155					160					165					170	
cta	agt	gtg	agg	ggg	acc	act	cac	tta	ctc	gta	cac	gat	gtg	gcc	ctg	750
Leu	Ser	Val	Arg	Gly	Thr	Thr	His	Leu	Leu	Val	His	Asp	Val	Ala	Leu	
				175					180					185		
gaa	gat	gct	ggc	tat	tac	cgc	tgt	gtc	ctg	aca	ttt	gcc	cat	gaa	ggc	798
Glu	Asp	Ala	Gly	Tyr	Tyr	Arg	Cys	Val	Leu	Thr	Phe	Ala	His	Glu	Gly	
			190					195					200			
cag	caa	tac	aac	atc	act	agg	agt	att	gag	cta	cgc	atc	aag	aaa	aaa	846
Gln	Gln	Tyr	Asn	Ile	Thr	Arg	Ser	Ile	Glu	Leu	Arg	Ile	Lys	Lys	Lys	
		205					210					215				
aaa	gaa	gag	acc	att	cct	gtg	atc	att	tcc	ccc	ctc	aag	acc	ata	tca	894
Lys	Glu	Glu	Thr	Ile	Pro	Val	Ile	Ile	Ser	Pro	Leu	Lys	Thr	Ile	Ser	
	220					225					230					
gct	tct	ctg	ggg	tca	aga	ctg	aca	atc	ccg	tgt	aag	gtg	ttt	ctg	gga	942
Ala	Ser	Leu	Gly	Ser	Arg	Leu	Thr	Ile	Pro	Cys	Lys	Val	Phe	Leu	Gly	
235					240					245					250	
acc	ggc	aca	ccc	tta	acc	acc	atg	ctg	tgg	tgg	acg	gcc	aat	gac	acc	990
Thr	Gly	Thr	Pro	Leu	Thr	Thr	Met	Leu	Trp	Trp	Thr	Ala	Asn	Asp	Thr	
				255					260					265		
cac	ata	gag	agc	gcc	tac	ccg	gga	ggc	cgc	gtg	acc	gag	ggg	cca	cgc	1038
His	Ile	Glu	Ser	Ala	Tyr	Pro	Gly	Gly	Arg	Val	Thr	Glu	Gly	Pro	Arg	
			270					275					280			
cag	gaa	tat	tca	gaa	aat	aat	gag	aac	tac	att	gaa	gtg	cca	ttg	att	1086
Gln	Glu	Tyr	Ser	Glu	Asn	Asn	Glu	Asn	Tyr	Ile	Glu	Val	Pro	Leu	Ile	
		285					290					295				
ttt	gat	cct	gtc	aca	aga	gag	gat	ttg	cac	atg	gat	ttt	aaa	tgt	gtt	1134
Phe	Asp	Pro	Val	Thr	Arg	Glu	Asp	Leu	His	Met	Asp	Phe	Lys	Cys	Val	
	300					305					310					
gtc	cat	aat	acc	ctg	agt	ttt	cag	aca	cta	cgc	acc	aca	gtc	aag	gaa	1182
Val	His	Asn	Thr	Leu	Ser	Phe	Gln	Thr	Leu	Arg	Thr	Thr	Val	Lys	Glu	

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• 315                320                325                330

gcc tcc tcc acg ttc tcc tgg ggc att gtg ctg gcc cca ctt tca ctg      1230
Ala Ser Ser Thr Phe Ser Trp Gly Ile Val Leu Ala Pro Leu Ser Leu
                335                340                345

gcc ttc ttg gtt ttg ggg gga ata tgg atg cac aga cgg tgc aaa cac      1278
Ala Phe Leu Val Leu Gly Gly Ile Trp Met His Arg Arg Cys Lys His
                350                355                360

aga act gga aaa gca gat ggt ctg act gtg cta tgg cct cat cat caa      1326
Arg Thr Gly Lys Ala Asp Gly Leu Thr Val Leu Trp Pro His His Gln
                365                370                375

gac ttt caa tcc tat ccc aag tgaaataaat                                1357
Asp Phe Gln Ser Tyr Pro Lys
                380                385

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<213> Homo sapiens

<400> 8

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Arg His Tyr Lys Arg Glu Phe Arg Leu Glu Gly Glu Pro Val Ala Leu
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Arg Cys Pro Gln Val Pro Tyr Trp Leu Trp Ala Ser Val Ser Pro Arg
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Ile Asn Leu Thr Trp His Lys Asn Asp Ser Ala Arg Thr Val Pro Gly
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Glu Glu Glu Thr Arg Met Trp Ala Gln Asp Gly Ala Leu Trp Leu Leu
    70                75                80

Pro Ala Leu Gln Glu Asp Ser Gly Thr Tyr Val Cys Thr Thr Arg Asn
    85                90                95

Ala Ser Tyr Cys Asp Lys Met Ser Ile Glu Leu Arg Val Phe Glu Asn
100                105                110                115

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Thr Asp Ala Phe Leu Pro Phe Ile Ser Tyr Pro Gln Ile Leu Thr Leu
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Ser Thr Ser Gly Val Leu Val Cys Pro Asp Leu Ser Glu Phe Thr Arg
 135 140 145

Asp Lys Thr Asp Val Lys Ile Gln Trp Tyr Lys Asp Ser Leu Leu Leu
 150 155 160

Asp Lys Asp Asn Glu Lys Phe Leu Ser Val Arg Gly Thr Thr His Leu
 165 170 175

Leu Val His Asp Val Ala Leu Glu Asp Ala Gly Tyr Tyr Arg Cys Val
 180 185 190 195

Leu Thr Phe Ala His Glu Gly Gln Gln Tyr Asn Ile Thr Arg Ser Ile
 200 205 210

Glu Leu Arg Ile Lys Lys Lys Lys Glu Glu Thr Ile Pro Val Ile Ile
 215 220 225

Ser Pro Leu Lys Thr Ile Ser Ala Ser Leu Gly Ser Arg Leu Thr Ile
 230 235 240

Pro Cys Lys Val Phe Leu Gly Thr Gly Thr Pro Leu Thr Thr Met Leu
 245 250 255

Trp Trp Thr Ala Asn Asp Thr His Ile Glu Ser Ala Tyr Pro Gly Gly
 260 265 270 275

Arg Val Thr Glu Gly Pro Arg Gln Glu Tyr Ser Glu Asn Asn Glu Asn
 280 285 290

Tyr Ile Glu Val Pro Leu Ile Phe Asp Pro Val Thr Arg Glu Asp Leu
 295 300 305

His Met Asp Phe Lys Cys Val Val His Asn Thr Leu Ser Phe Gln Thr
 310 315 320

Leu Arg Thr Thr Val Lys Glu Ala Ser Ser Thr Phe Ser Trp Gly Ile
 325 330 335

Val Leu Ala Pro Leu Ser Leu Ala Phe Leu Val Leu Gly Gly Ile Trp
 340 345 350 355

Met His Arg Arg Cys Lys His Arg Thr Gly Lys Ala Asp Gly Leu Thr
 360 365 370

Val Leu Trp Pro His His Gln Asp Phe Gln Ser Tyr Pro Lys
 375 380 385

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ctg ctg cag gtg gca agc tct ggg aac atg aag gtc ttg cag gag ccc 96
 Leu Leu Gln Val Ala Ser Ser Gly Asn Met Lys Val Leu Gln Glu Pro
 -5 -1 1 5

acc tgc gtc tcc gac tac atg agc atc tct act tgc gag tgg aag atg 144
 Thr Cys Val Ser Asp Tyr Met Ser Ile Ser Thr Cys Glu Trp Lys Met
 10 15 20

aat ggt ccc acc aat tgc agc acc gag ctc cgc ctg ttg tac cag ctg Asn Gly Pro Thr Asn Cys Ser Thr Glu Leu Arg Leu Leu Tyr Gln Leu 25 30 35	192
ggt ttt ctg ctc tcc gaa gcc cac acg tgt atc cct gag aac aac gga Val Phe Leu Leu Ser Glu Ala His Thr Cys Ile Pro Glu Asn Asn Gly 40 45 50 55	240
ggc gcg ggg tgc gtg tgc cac ctg ctc atg gat gac gtg gtc agt gcg Gly Ala Gly Cys Val Cys His Leu Leu Met Asp Asp Val Val Ser Ala 60 65 70	288
gat aac tat aca ctg gac ctg tgg gct ggg cag cag ctg ctg tgg aag Asp Asn Tyr Thr Leu Asp Leu Trp Ala Gly Gln Gln Leu Leu Trp Lys 75 80 85	336
ggc tcc ttc aag ccc agc gag cat gtg aaa ccc agg gcc cca gga aac Gly Ser Phe Lys Pro Ser Glu His Val Lys Pro Arg Ala Pro Gly Asn 90 95 100	384
ctg aca gtt cac acc aat gtc tcc gac act ctg ctg ctg acc tgg agc Leu Thr Val His Thr Asn Val Ser Asp Thr Leu Leu Leu Thr Trp Ser 105 110 115	432
aac ccg tat ccc cct gac aat tac ctg tat aat cat ctc acc tat gca Asn Pro Tyr Pro Pro Asp Asn Tyr Leu Tyr Asn His Leu Thr Tyr Ala 120 125 130 135	480
gtc aac att tgg agt gaa aac gac ccg gca gat ttc aga atc tat aac Val Asn Ile Trp Ser Glu Asn Asp Pro Ala Asp Phe Arg Ile Tyr Asn 140 145 150	528
gtg acc tac cta gaa ccc tcc ctc cgc atc gca gcc agc acc ctg aag Val Thr Tyr Leu Glu Pro Ser Leu Arg Ile Ala Ala Ser Thr Leu Lys 155 160 165	576
tct ggg att tcc tac agg gca cgg gtg agg gcc tgg gct cag tgc tat Ser Gly Ile Ser Tyr Arg Ala Arg Val Arg Ala Trp Ala Gln Cys Tyr 170 175 180	624
aac acc acc tgg agt gag tgg agc ccc agc acc aag tgg cac aac tcc Asn Thr Thr Trp Ser Glu Trp Ser Pro Ser Thr Lys Trp His Asn Ser 185 190 195	672
tac agg gag ccc ttc gag cag cac ctc ctg ctg gcc gtc agc gtt tcc Tyr Arg Glu Pro Phe Glu Gln His Leu Leu Leu Gly Val Ser Val Ser 200 205 210 215	720
tgc att gtc atc ctg gcc gtc tgc ctg ttg tgc tat gtc agc atc acc Cys Ile Val Ile Leu Ala Val Cys Leu Leu Cys Tyr Val Ser Ile Thr 220 225 230	768
aag att aag aaa gaa tgg tgg gat cag att ccc aac cca gcc cgc agc Lys Ile Lys Lys Glu Trp Trp Asp Gln Ile Pro Asn Pro Ala Arg Ser 235 240 245	816
cgc ctc gtg gct ata ata atc cag gat gct cag ggg tca cag tgg gag	864

Arg	Leu	Val	Ala	Ile	Ile	Ile	Gln	Asp	Ala	Gln	Gly	Ser	Gln	Trp	Glu		
	250						255					260					
aag	cgg	tcc	cga	ggc	cag	gaa	cca	gcc	aag	tgc	cca	cac	tgg	aag	aat		912
Lys	Arg	Ser	Arg	Gly	Gln	Glu	Pro	Ala	Lys	Cys	Pro	His	Trp	Lys	Asn		
	265					270					275						
tgt	ctt	acc	aag	ctc	ttg	ccc	tgt	ttt	ctg	gag	cac	aac	atg	aaa	agg		960
Cys	Leu	Thr	Lys	Leu	Leu	Pro	Cys	Phe	Leu	Glu	His	Asn	Met	Lys	Arg		
	280				285					290					295		
gat	gaa	gat	cct	cac	aag	gct	gcc	aaa	gag	atg	cct	ttc	cag	ggc	tct		1008
Asp	Glu	Asp	Pro	His	Lys	Ala	Ala	Lys	Glu	Met	Pro	Phe	Gln	Gly	Ser		
				300					305					310			
gga	aaa	tca	gca	tgg	tgc	cca	gtg	gag	atc	agc	aag	aca	gtc	ctc	tgg		1056
Gly	Lys	Ser	Ala	Trp	Cys	Pro	Val	Glu	Ile	Ser	Lys	Thr	Val	Leu	Trp		
			315					320					325				
cca	gag	agc	atc	agc	gtg	gtg	cga	tgt	gtg	gag	ttg	ttt	gag	gcc	ccg		1104
Pro	Glu	Ser	Ile	Ser	Val	Val	Arg	Cys	Val	Glu	Leu	Phe	Glu	Ala	Pro		
			330				335						340				
gtg	gag	tgt	gag	gag	gag	gag	gag	gta	gag	gaa	gaa	aaa	ggg	agc	ttc		1152
Val	Glu	Cys	Glu	Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Lys	Gly	Ser	Phe		
	345					350						355					
tgt	gca	tcg	cct	gag	agc	agc	agg	gat	gac	ttc	cag	gag	gga	agg	gag		1200
Cys	Ala	Ser	Pro	Glu	Ser	Ser	Arg	Asp	Asp	Phe	Gln	Glu	Gly	Arg	Glu		
	360				365				370						375		
ggc	att	gtg	gcc	cgg	cta	aca	gag	agc	ctg	ttc	ctg	gac	ctg	ctc	gga		1248
Gly	Ile	Val	Ala	Arg	Leu	Thr	Glu	Ser	Leu	Phe	Leu	Asp	Leu	Leu	Gly		
				380					385					390			
gag	gag	aat	ggg	ggc	ttt	tgc	cag	cag	gac	atg	ggg	gag	tca	tgc	ctt		1296
Glu	Glu	Asn	Gly	Gly	Phe	Cys	Gln	Gln	Asp	Met	Gly	Glu	Ser	Cys	Leu		
			395					400					405				
ctt	cca	cct	tcg	gga	agt	acg	agt	gct	cac	atg	ccc	tgg	gat	gag	ttc		1344
Leu	Pro	Pro	Ser	Gly	Ser	Thr	Ser	Ala	His	Met	Pro	Trp	Asp	Glu	Phe		
		410					415					420					
cca	agt	gca	ggg	ccc	aag	gag	gca	cct	ccc	tgg	ggc	aag	gag	cag	cct		1392
Pro	Ser	Ala	Gly	Pro	Lys	Glu	Ala	Pro	Pro	Trp	Gly	Lys	Glu	Gln	Pro		
		425				430					435						
ctc	cac	ctg	gag	cca	agt	cct	cct	gcc	agc	ccg	acc	cag	agt	cca	gac		1440
Leu	His	Leu	Glu	Pro	Ser	Pro	Pro	Ala	Ser	Pro	Thr	Gln	Ser	Pro	Asp		
	440				445				450						455		
aac	ctg	act	tgc	aca	gag	acg	ccc	ctc	gtc	atc	gca	ggc	aac	cct	gct		1488
Asn	Leu	Thr	Cys	Thr	Glu	Thr	Pro	Leu	Val	Ile	Ala	Gly	Asn	Pro	Ala		
				460				465					470				
tac	cgc	agc	ttc	agc	aac	tcc	ctg	agc	cag	tca	ccg	tgt	ccc	aga	gag		1536
Tyr	Arg	Ser	Phe	Ser	Asn	Ser	Leu	Ser	Gln	Ser	Pro	Cys	Pro	Arg	Glu		

475	480	485	
ctg ggt cca gac cca ctg ctg gcc aga cac ctg gag gaa gta gaa ccc Leu Gly Pro Asp Pro Leu Leu Ala Arg His Leu Glu Glu Val Glu Pro 490 495 500			1584
gag atg ccc tgt gtc ccc cag ctc tct gag cca acc act gtg ccc caa Glu Met Pro Cys Val Pro Gln Leu Ser Glu Pro Thr Thr Val Pro Gln 505 510 515			1632
cct gag cca gaa acc tgg gag cag atc ctc cgc cga aat gtc ctc cag Pro Glu Pro Glu Thr Trp Glu Gln Ile Leu Arg Arg Asn Val Leu Gln 520 525 530 535			1680
cat ggg gca gct gca gcc ccc gtc tgc gcc ccc acc agt ggc tat cag His Gly Ala Ala Ala Ala Pro Val Ser Ala Pro Thr Ser Gly Tyr Gln 540 545 550			1728
gag ttt gta cat gcg gtg gag cag ggt ggc acc cag gcc agt gcg gtg Glu Phe Val His Ala Val Glu Gln Gly Gly Thr Gln Ala Ser Ala Val 555 560 565			1776
gtg ggc ttg ggt ccc cca gga gag gct ggt tac aag gcc ttc tca agc Val Gly Leu Gly Pro Pro Gly Glu Ala Gly Tyr Lys Ala Phe Ser Ser 570 575 580			1824
ctg ctt gcc agc agt gct gtg tcc cca gag aaa tgt ggg ttt ggg gct Leu Leu Ala Ser Ser Ala Val Ser Pro Glu Lys Cys Gly Phe Gly Ala 585 590 595			1872
agc agt ggg gaa gag ggg tat aag cct ttc caa gac ctc att cct ggc Ser Ser Gly Glu Glu Gly Tyr Lys Pro Phe Gln Asp Leu Ile Pro Gly 600 605 610 615			1920
tgc cct ggg gac cct gcc cca gtc cct gtc ccc ttg ttc acc ttt gga Cys Pro Gly Asp Pro Ala Pro Val Pro Val Pro Leu Phe Thr Phe Gly 620 625 630			1968
ctg gac agg gag cca cct cgc agt ccg cag agc tca cat ctc cca agc Leu Asp Arg Glu Pro Pro Arg Ser Pro Gln Ser Ser His Leu Pro Ser 635 640 645			2016
agc tcc cca gag cac ctg ggt ctg gag ccg ggg gaa aag gta gag gac Ser Ser Pro Glu His Leu Gly Leu Glu Pro Gly Glu Lys Val Glu Asp 650 655 660			2064
atg cca aag ccc cca ctt ccc cag gag cag gcc aca gac ccc ctt gtg Met Pro Lys Pro Pro Leu Pro Gln Glu Gln Ala Thr Asp Pro Leu Val 665 670 675			2112
gac agc ctg ggc agt ggc att gtc tac tca gcc ctt acc tgc cac ctg Asp Ser Leu Gly Ser Gly Ile Val Tyr Ser Ala Leu Thr Cys His Leu 680 685 690 695			2160
tgc ggc cac ctg aaa cag tgt cat ggc cag gag gat ggt ggc cag acc Cys Gly His Leu Lys Gln Cys His Gly Gln Glu Asp Gly Gly Gln Thr 700 705 710			2208

cct gtc atg gcc agt cct tgc tgt ggc tgc tgc tgt gga gac agg tcc 2256
 Pro Val Met Ala Ser Pro Cys Cys Gly Cys Cys Cys Gly Asp Arg Ser
 715 720 725

tcg ccc cct aca acc ccc ctg agg gcc cca gac ccc tct cca ggt ggg 2304
 Ser Pro Pro Thr Thr Pro Leu Arg Ala Pro Asp Pro Ser Pro Gly Gly
 730 735 740

gtt cca ctg gag gcc agt ctg tgt ccg gcc tcc ctg gca ccc tcg ggc 2352
 Val Pro Leu Glu Ala Ser Leu Cys Pro Ala Ser Leu Ala Pro Ser Gly
 745 750 755

atc tca gag aag agt aaa tcc tca tca tcc ttc cat cct gcc cct ggc 2400
 Ile Ser Glu Lys Ser Lys Ser Ser Ser Ser Phe His Pro Ala Pro Gly
 760 765 770 775

aat gct cag agc tca agc cag acc ccc aaa atc gtg aac ttt gtc tcc 2448
 Asn Ala Gln Ser Ser Ser Gln Thr Pro Lys Ile Val Asn Phe Val Ser
 780 785 790

gtg gga ccc aca tac atg agg gtc tct tat 2478
 Val Gly Pro Thr Tyr Met Arg Val Ser
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Thr Cys Val Ser Asp Tyr Met Ser Ile Ser Thr Cys Glu Trp Lys Met
 10 15 20

Asn Gly Pro Thr Asn Cys Ser Thr Glu Leu Arg Leu Leu Tyr Gln Leu
 25 30 35

Val Phe Leu Leu Ser Glu Ala His Thr Cys Ile Pro Glu Asn Asn Gly
 40 45 50 55

Gly Ala Gly Cys Val Cys His Leu Leu Met Asp Asp Val Val Ser Ala
 60 65 70

Asp Asn Tyr Thr Leu Asp Leu Trp Ala Gly Gln Gln Leu Leu Trp Lys
75 80 85

Gly Ser Phe Lys Pro Ser Glu His Val Lys Pro Arg Ala Pro Gly Asn
90 95 100

Leu Thr Val His Thr Asn Val Ser Asp Thr Leu Leu Leu Thr Trp Ser
105 110 115

Asn Pro Tyr Pro Pro Asp Asn Tyr Leu Tyr Asn His Leu Thr Tyr Ala
120 125 130 135

Val Asn Ile Trp Ser Glu Asn Asp Pro Ala Asp Phe Arg Ile Tyr Asn
140 145 150

Val Thr Tyr Leu Glu Pro Ser Leu Arg Ile Ala Ala Ser Thr Leu Lys
155 160 165

Ser Gly Ile Ser Tyr Arg Ala Arg Val Arg Ala Trp Ala Gln Cys Tyr
170 175 180

Asn Thr Thr Trp Ser Glu Trp Ser Pro Ser Thr Lys Trp His Asn Ser
185 190 195

Tyr Arg Glu Pro Phe Glu Gln His Leu Leu Leu Gly Val Ser Val Ser
200 205 210 215

Cys Ile Val Ile Leu Ala Val Cys Leu Leu Cys Tyr Val Ser Ile Thr
220 225 230

Lys Ile Lys Lys Glu Trp Trp Asp Gln Ile Pro Asn Pro Ala Arg Ser
235 240 245

Arg Leu Val Ala Ile Ile Ile Gln Asp Ala Gln Gly Ser Gln Trp Glu
250 255 260

Lys Arg Ser Arg Gly Gln Glu Pro Ala Lys Cys Pro His Trp Lys Asn
265 270 275

Cys Leu Thr Lys Leu Leu Pro Cys Phe Leu Glu His Asn Met Lys Arg
280 285 290 295

Asp Glu Asp Pro His Lys Ala Ala Lys Glu Met Pro Phe Gln Gly Ser

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Gly	Lys	Ser	Ala	Trp	Cys	Pro	Val	Glu	Ile	Ser	Lys	Thr	Val	Leu	Trp				
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Pro	Glu	Ser	Ile	Ser	Val	Val	Arg	Cys	Val	Glu	Leu	Phe	Glu	Ala	Pro				
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Val	Glu	Cys	Glu	Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Lys	Gly	Ser	Phe				
	345						350					355							
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360						365				370					375				
Gly	Ile	Val	Ala	Arg	Leu	Thr	Glu	Ser	Leu	Phe	Leu	Asp	Leu	Leu	Gly				
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Glu	Glu	Asn	Gly	Gly	Phe	Cys	Gln	Gln	Asp	Met	Gly	Glu	Ser	Cys	Leu				
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Leu	Pro	Pro	Ser	Gly	Ser	Thr	Ser	Ala	His	Met	Pro	Trp	Asp	Glu	Phe				
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Pro	Ser	Ala	Gly	Pro	Lys	Glu	Ala	Pro	Pro	Trp	Gly	Lys	Glu	Gln	Pro				
	425						430				435								
Leu	His	Leu	Glu	Pro	Ser	Pro	Pro	Ala	Ser	Pro	Thr	Gln	Ser	Pro	Asp				
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Asn	Leu	Thr	Cys	Thr	Glu	Thr	Pro	Leu	Val	Ile	Ala	Gly	Asn	Pro	Ala				
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Tyr	Arg	Ser	Phe	Ser	Asn	Ser	Leu	Ser	Gln	Ser	Pro	Cys	Pro	Arg	Glu				
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		490					495					500							
Glu	Met	Pro	Cys	Val	Pro	Gln	Leu	Ser	Glu	Pro	Thr	Thr	Val	Pro	Gln				
	505						510				515								
Pro	Glu	Pro	Glu	Thr	Trp	Glu	Gln	Ile	Leu	Arg	Arg	Asn	Val	Leu	Gln				
520					525					530					535				

His Gly Ala Ala Ala Ala Pro Val Ser Ala Pro Thr Ser Gly Tyr Gln
 540 545 550

Glu Phe Val His Ala Val Glu Gln Gly Gly Thr Gln Ala Ser Ala Val
 555 560 565

Val Gly Leu Gly Pro Pro Gly Glu Ala Gly Tyr Lys Ala Phe Ser Ser
 570 575 580

Leu Leu Ala Ser Ser Ala Val Ser Pro Glu Lys Cys Gly Phe Gly Ala
 585 590 595

Ser Ser Gly Glu Glu Gly Tyr Lys Pro Phe Gln Asp Leu Ile Pro Gly
 600 605 610 615

Cys Pro Gly Asp Pro Ala Pro Val Pro Val Pro Leu Phe Thr Phe Gly
 620 625 630

Leu Asp Arg Glu Pro Pro Arg Ser Pro Gln Ser Ser His Leu Pro Ser
 635 640 645

Ser Ser Pro Glu His Leu Gly Leu Glu Pro Gly Glu Lys Val Glu Asp
 650 655 660

Met Pro Lys Pro Pro Leu Pro Gln Glu Gln Ala Thr Asp Pro Leu Val
 665 670 675

Asp Ser Leu Gly Ser Gly Ile Val Tyr Ser Ala Leu Thr Cys His Leu
 680 685 690 695

Cys Gly His Leu Lys Gln Cys His Gly Gln Glu Asp Gly Gly Gln Thr
 700 705 710

Pro Val Met Ala Ser Pro Cys Cys Gly Cys Cys Cys Gly Asp Arg Ser
 715 720 725

Ser Pro Pro Thr Thr Pro Leu Arg Ala Pro Asp Pro Ser Pro Gly Gly
 730 735 740

Val Pro Leu Glu Ala Ser Leu Cys Pro Ala Ser Leu Ala Pro Ser Gly
 745 750 755

Ile Ser Glu Lys Ser Lys Ser Ser Ser Ser Phe His Pro Ala Pro Gly
760 765 770 775

Asn Ala Gln Ser Ser Ser Gln Thr Pro Lys Ile Val Asn Phe Val Ser
780 785 790

Val Gly Pro Thr Tyr Met Arg Val Ser
795 800